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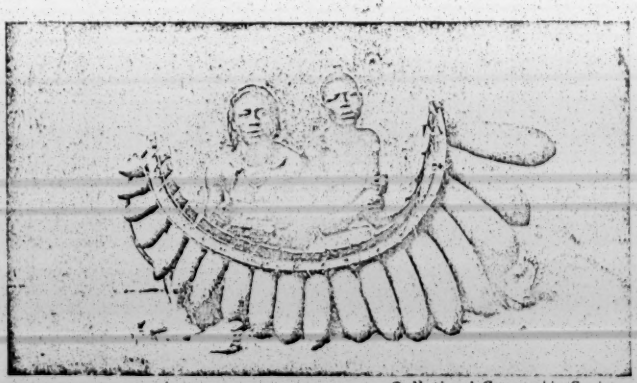

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THE MARIMBA, THE NATIVE PIANO OF ANGOLA
(See Bulletin No. 1)

HOW TEACHERS MAY OBTAIN THE BULLETINS

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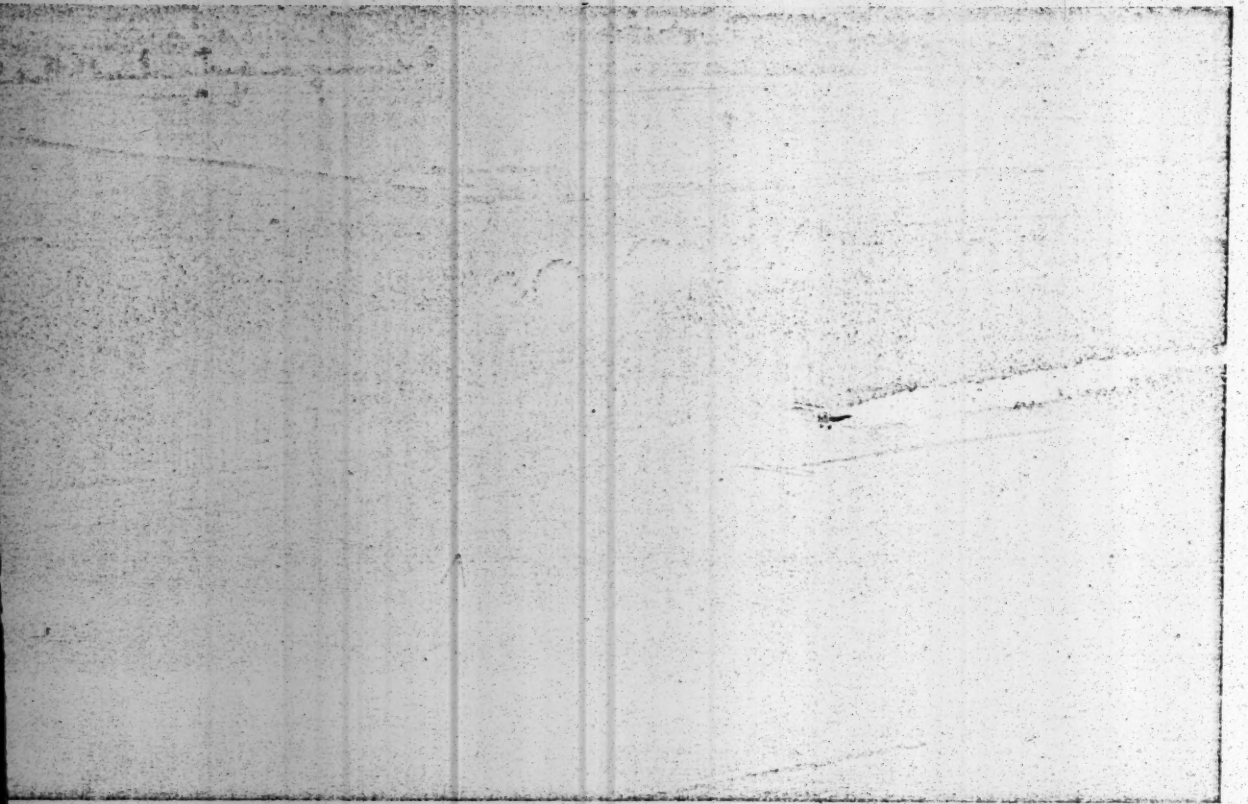

© Photograph by Capt. Albert W. Stevens.

LAYING DOWN A POISON POWDER BARRAGE AGAINST CATERPILLARS

ng at the rate of 80 miles an hour, at an altitude of from 20 to 35 feet and on a line parallel with and 53 yards to the windward of a catalpa grove. A three-angled aged for the control of the dust after the release of the poison powder from the airplane. Gravity tried to pull it down; the "booster currents" tried to toss it the surface stratum of air or wind blowing in the direction indicated by the arrow endeavored to carry it over and through the grove. The last named of the com-

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Angola: Which Rumor Has It Italy Would Like to Buy

RUMORS are abroad of an international deal in real estate. Italy, it is said, wishes to buy Angola from Portugal. Italy could use this vast African domain for some of her surplus people.

Angola covers a large part of southwestern Africa. It stretches along the Atlantic Ocean for 1,000 miles and extends 800 miles or more inland. An equal slice of territory in southeastern United States would have a coast line extending from southern Georgia to New York City and, excepting Florida, would include an area greater than all the States south of New York and the Great Lakes, and east of the Mississippi River.

Nosed Out by Brazil and India

This vast region, although it was discovered by Portuguese sailors in 1442 and although it has had Portuguese settlements since 1575, has not been developed to any great extent. It was really a victim of the discovery of Brazil and the route to India, because into those more promising regions Portugal poured all her colonizing energy. At that time Portugal was the world's leader in colonization. The stream of energy and men passed Angola by, and it has been a sort of Portuguese backwater ever since.

But there are also potent geographic and economic reasons for Angola's lack of development. With the exception of former German Southwest Africa, which adjoins it to the south, Angola has the dreariest and most forbidding coast of any section of Africa. It may be compared with the desert coast of northern Chile and Peru. It even has a cool current that sweeps up the African coast from the Antarctic much as the Humboldt current flows northward along the west coast of South America.

Angola's Worst Foot Is Forward

Sand dunes cover much of the land immediately along the coast, with here and there bare rocky promontories jutting out of the shifting grains. Where the sands are not in dunes scrub grows, but it is so sparse that from the sea the coast appears utterly barren. Where water courses enter the sea there is often a luxuriant vegetation in their valleys. It is in such long, narrow oases that are grown the vegetables and fruits for the few coastal settlements.

So much for the worst foot which Angola thrusts forward. Behind is a promising region. The coastal desert strip extends inland from 12 to 120 miles and then the country rises by a series of huge terraces to a broad plateau which extends eastward into the heart of Africa. On each higher terrace conditions are better than on that below. The transition is from aridity and lack of vegetation through semi-aridity to a reasonably well-watered park land of grass and scattered trees. Much of this plateau is an excellent region for Europeans, healthy, cool, reasonably productive and much of it free from the tsetse fly which makes cattle-raising impossible in broad areas of Africa.

A Refuge for Boers from Transvaal

In the southern portion of Angola's plateau is a sort of little Transvaal. Displeased with alien control from which ordinary treks did not seem to free

them, a group of Boers took the wearisome journey across the great Kalahari Desert and settled in this remote region. Many perished on the road, but those who won through have established solid settlements in which the Portuguese officials have granted them the liberty and self-government in their communities which they so much desire. In their settlements, surrounded by houses of typical Transvaal architecture, and with the great heavy wagons in use, one might imagine himself a thousand miles away in the vicinity of Johannesburg or Pretoria.

At several points railways extend from the coast of Angola to the almost temperate zone plateau. The most important railway starts from the middle of the long coast and extends some 300 miles into the interior. It will eventually extend eastward across Angola and into the Belgian Congo to connect with existing Belgian and South African systems and with lines to the east coast of Africa. The Angolan port terminus of this railroad is Lobito with one of the best harbors in Africa. Lobito is an upstart among the ancient coastal cities, having been born on a bare sand-spit only a few years ago.

Cold Current Brings Blessings

Loanda, capital of Angola, also has lines of steel extending into the interior, and from Mossamedes a "toy railway," with narrow-gauge track and tiny cars, runs across the desert strip and into the hills.

All of the Angola coast is indebted to the cold current that bathes it for cool sea breezes and in general a much more pleasant climate than its latitude entitles it to. But the current is especially beneficent to the Mossamedes and Porto Alexandre districts of the south. These are the healthiest portions of the coast with relatively low mean temperatures, dry, cool air, and freedom from malarial mosquitoes. The cool current also brings to the southern coast vast schools of fish like the cod and the chief industry is fishing. The climate is excellent for drying fish, and a few miles inland are inexhaustible supplies of salt. The region ships thousands of pounds of dried fish and much "cod liver" oil.

Bulletin No. 1, November 8, 1926.

Form for Renewal of Bulletin Requests

Many requests for the GEOGRAPHIC NEWS BULLETINS were made for the year ending with this issue. If you desire the Bulletins continued kindly notify The Society promptly. The attached form may be used:

School Service Department,
National Geographic Society,
Washington, D. C.

Kindly send.....copies of the GEOGRAPHIC NEWS BULLETINS for the school year beginning with the issue of....., for classroom use, to

Name .....

Address for sending Bulletins.....

City..... State.....

I am a teacher in.....school.....grade.

Enclose 25 cents for each

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The American Poison Trade

FROM the South come reports of a bumper cotton crop this year.

The boll weevil has not been quite the "bug bear" of other years to Southern cotton raisers since the discovery that a proper proportion of calcium arsenate will make him turn up his toes. Farmers of other crops, fruits, vegetables and grains alike praise the modern expert poisoner.

Poison has entered the ranks of big business within the last 15 years. It is now broadcast over forests as well as cotton fields. Death-dealing poison is the policeman of orchards and vineyards and a swatter of insects. It is guardian of water supplies, godfather to the grain crop, first assistant to the doctor, and aide to the veterinary. Many agencies are booming the poison trade.

Scientific Poisoners and Their Haunt

On a certain block of 13th Street Southwest, in Washington, there is a three-story brick building. To all appearances it is a small apartment house. There is a herculean task going on in this smug lodging with flapping awnings. It is the task of converting a black art into a blessed science.

Occupying the third floor of the Insecticide and Fungicide Bureau are the laboratories which test all the poisons of those two classes used in the United States. Killing compounds must toe the mark of the "pure poison" act passed by Congress in 1910. These laboratories are poison's best friend. They helped develop the calcium arsenate formula which is the hope of the South against the ravages of the boll weevil. More recently they have found how to adapt the powerful poison of a beautiful chrysanthemum for the preparation of a poison gas which is death to pestiferous flies but which will not harm the higher animals, including humans.

Reduction of the $1,500,000,000 loss which agriculture suffers every year from insects and fungi is the chief goal of the bug poisoners' black art.

Elements of Bad Character

Laboratory workers and all students of chemistry know that certain of the 95 elements are bad characters. Most of these elements, which are enemies of life, lead Dr. Jekyll and Mr. Hyde existences. Copper, that ready messenger boy of mankind, gets into bad company with sulphur. Copper-sulphate will kill a bug instantaneously. Chlorine seeks mankind's companionship in the welcome guise of salt, but chlorine has vicious tendencies. Man hires this desperado chlorine to wipe out tribes of microbes in drinking water. In association with mercury it is also useful in tanning, preserving wood, hat manufacture, and embalming, but again its poisonous proclivities are so pronounced that it can be classed as a strong antiseptic. Other good-bad elements are sulphur, lead, phosphorus and potassium. But the king of them all is arsenic. The debt the United States owes to arsenic, for exterminating insects, fighting fungi, bacteria, rats, mice and gophers, is incalculable.

One recent year more than 14 million pounds of arsenic were distributed to the country in insecticides and fungicides. Yet search the country over and you will not find an arsenic mine in operation, although the element is common.

It occurs as a constituent of 130 minerals. The main supplies of arsenic are obtained as by-products of American safety engineering and American mines.

How a Trap for Petty Thieves Caught a Big One

There was a time when the smokestack of a smelter devastated the countryside round about. Irate property owners sought protection of the law and won damages. Mining companies put engineers on the problem and devices have been invented to make a smelter as harmless as a grocery. The engineers found that in robbing the smelter smoke of its poisons they collected sulphur, arsenic, and compounds which could be marketed. They feared at first that dumping quantities of arsenic on the market would lower the price to a ruinous level. But about this time the American farmer began waking up to the usefulness of poison in his age-old fight on insects. Contrary to expectations American mining concerns could not even catch up with the demand of agriculture and within a year (records down to June 1) the United States imported 12,000,000 pounds of arsenic.

Copper sulphate, lime and water mixed together form a solution which is death to worms and a boon to the cabbage crop, the berry and currant crop, and other crops. It goes under the name of Bordeaux mixture because its usefulness was discovered by an odd freak in a vineyard near the French wine town. A French vineyardist was exasperated with thieves who stole his grapes. So he made up a paste of chemicals which he put on the outside vines all around his garden. Insect pests were the real thieves of the Bordeaux grapevines that year, that is, of most of the grapevines except the vines in the French peasant's poison ring. A young scientist noticed the phenomenon. It gave him an idea. He experimented with the paste, determined the proper proportions, and the world has been using Bordeaux mixture extensively ever since.

Nux Vomica Tree Contributes Strychnine

Paris green (copper arsenate), for years the best known insecticide, is gradually being displaced by new and better workers. There is calcium arsenate and there is lead arsenate. More than 17,000,000 pounds of lead arsenate were mixed last year, chiefly for use in orchards.

Simple chemical compounds are not the whole story. The benevolent poison trade is still dependent on the plant world, which was probably the original producer of deadly drugs. Strychnine is a product of the round, hard seeds from the fruit of the nux vomica tree which grows in the East Indies. Then there is pyrethrum. It sounds like a new tooth paste. Pyrethrum swelled American import figures by $1,461,000 last year, coming from such outlandish places as Krivelji and Cittavecchia in Dalmatia and Ki-i and Mikawa, Japan.

In old poison lore there is reference now and then to the pyrethrum as Persian powder, renowned for killing bugs of all kinds. Some of it may have reached Russia but to Western Europe the powder's powers were largely hearsay, so bugs thrived happily. But about 1800 an Armenian named Sumttoff discovered that Persian powder was concocted from the flower heads of a pretty variety of chrysanthemum native to the high Caucasus Mountains. His son began the manufacture and export of it in 1818.

More Powerful Than Nicotine

Cultivation of pyrethrum flowers, as they are called, spread to the Balkans. The most successful attempt to grow pyrethrum in the United States was in California. But at present the United States depends chiefly on Japan for its supply, much to Japan's advantage because imports have increased enormously. Innocent looking pyrethrum strikes with more power than nicotine. Through the work of the government laboratory in Washington a method of extracting the active agent has been discovered so the insecticide in combination with a liquid may now be blown into the air like poison gas. Flies and other insects fall dead from the gas.

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If the Queen Should Speak of Constantza

IF YOU should meet the Queen of Rumania could you talk intelligently to her about her own land?

Bucharest, the capital of Rumania, is a good subject of conversation. But Her Majesty might think that Bucharest was the only Rumanian city of which you had heard.

What would you do if Queen Marie turned to the subject of Constantza? She has every right to speak about Constantza because that is the principal Black Sea port, the coming New York of Rumania.

Constantza is "little sister" to Constantinople. The similarity of names raises such a suspicion, and a look into their origins clinches the matter. Constantinople perpetuates the memory of Constantine the Great, while Constantza (originally Constantiana) was named for his sister, Constantia. After the Turks came to Europe, they corrupted the name to "Kustenje," and so the town is labeled on all maps of fifty years ago.

Twelve-Mile Bridge on Road to Constantza

A Black Sea port is relatively a new thing for Rumania. After the country gained a sort of independence from Turkey it was wholly cut off from the Black Sea by the region known as the Dobrudja. The only outlet was through one of the badly silted mouths of the Danube. The Dobrudja became a part of Rumania in 1878 as a result of the same Turko-Russian War that created Bulgaria and Serbia. Rumania looked upon the Dobrudja, even with its sugar-coating of a port, as a bitter pill at first, for Russia had taken a slice of Bessarabia on the northern border "in trade." The Dobrudja was largely a region of bare foot-hills, steppes, sand dunes and lagoons, peopled with Tatars, Turks, Bulgarians and other non-Rumanians.

A railroad had been built under the Turks from Constantza to the Danube, which marked the old Rumanian boundary. There, however, the river and its broad bordering marshes seemed an impassable barrier. Not until 1895 was the great Cerno Voda Bridge over the Danube opened. This huge structure, one of the greatest bridges in the world, with its several viaducts and approaches, is about 12 miles long. Its completion put Constantza within reach for the first time and gave Rumania a usable salt water port. In the meantime many of the non-Rumanians had moved out of the Dobrudja, the district had become somewhat Rumanized, and is now recognized as a real asset.

Rumania Makes It an Atlantic City

Even immediately after the exit of the Turks from Kustenje, the city was largely rebuilt, wide streets were provided and cleanliness and order replaced dirt and slovenliness. With its coming into its own as Rumania's chief sea port, Constantza has been developed along modern lines. Large grain elevators were constructed to handle the country's wheat exports. A pipe line was run from the oil fields across the Cerno Voda Bridge, huge petroleum tanks were built in Constantza, and the port became a sort of rival of Batum, oil export city of old Russia at the opposite end of the Black Sea. Breakwaters and other harbor works were constructed and the port was made headquarters for a Ru-

manian naval flotilla. Little more than a hamlet in Turkish days, the city now has a population of between 30,000 and 50,000. In the summer Constantza is Rumania's Atlantic City, thousands of visitors being attracted by the sea bathing.

There has been a town on the site of Constantza for many centuries. At the beginning of the Christian Era the town was Tomi; and there the Roman poet Ovid, banished by Augustus, died in exile in 17 A. D. A statue to this famous adopted son stands in the main square of Constantza. A little later than Ovid's time, Rome built one of the many "Trajan's walls" from the port to the Danube to aid in keeping the barbarians of the Russian steppes from the empire's colonies. Contractors, building the Constantza-Danube railway, used much of the material from the old walls for their road-bed.

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RUMANIAN WOMAN WITH SPINDLE

Wool, oil and many other Rumanian products are shipped out to the world through the ports of Constantza. After the sheep are shorn the wool comes into the women's hands, the spinning, the weaving, the worsted is

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Baroda: An Indian State of Land "Islands"

BARODA, India, is the scene of an interesting experiment. A millionaire Hindu desires to rear a breed of dogs which will have no appetite for meat. The Maharajah Gaekwar of Baroda has agreed to the founding of a "dog city" by the Hindu. Cats have been banned from the city. All mouse and rat holes have been stopped up. The dogs live on grains, milk and butter.

Baroda is one of the wealthiest of the Indian native states. It is actually a group of "islands" on dry land. Only prewar Prussia had more scattered dominions. There are four main divisions, but about each of the larger regions cluster small districts and even separate villages that fairly pepper the territory of the Bombay Presidency of British India, in which the Maharajah Gaekwar's "islands" lie. There is probably a separate fragment of Barodan territory for each of the fifty years the Gaekwar has ruled.

Jewels Worth $10,000,000 in Strong Box Palace

The territories, which total 8,000 square miles, begin near the west coast of India 150 miles north of Bombay City and extend for 200 miles to the north. Other fragments are scattered off to the west on the Kathiawar Peninsula, the most remote being 225 miles from Baroda City, the capital.

Most of the State is level fertile plain with growing crops over nearly every foot of it. This is especially true of the region lying to the north of the capital. With its fields, well ordered hedges, and groves of trees, this section has much the appearance of English park land. Some of India's best cotton land is in Baroda, and the State has 25 gins and a cotton mill. Rice and wheat are raised, and a considerable area is devoted to poppy growing for the making of opium. Growers of poppy are licensed, and the handling of opium is a state monopoly.

Baroda City has a population of 103,000, approximately that of Tacoma, Washington, or Canton, Ohio. There, and in the vicinity, are the palaces of the Gaekwar. The white stucco palace of Nazar Bagh is notable chiefly as the Barodan strong box. In it are stored the Gaekwar's jewels, said to be worth $10,000,000. Among them is one of the world's famous diamonds, "the Star of the South," of 125 carats. Another unit of the collection is a cloth embroidered with precious stones and seed pearls. This was prepared for a Mohammedan ruler and was meant as a cover for the tomb of Mohammed.

Separate Wards for Separate Castes

Four miles south of the city is the Makapura palace, the country place of the Gaekwar. It is noted for its fine gardens, fountains, grottoes, and pergolas. The chief of the ruler's residences is the Lakshmi Vilas. In it is a huge Durbar hall around which are covered and screened wooden galleries from which the women of the Gaekwar's menage may observe state functions without being seen.

Leading off the main street of Baroda City are numerous "wards," each set aside for a separate caste or class. Across their entrances are heavy gates. In certain sections of the town English influences are noticeable. Baroda

College has its cricket grounds, its tennis courts, and its gymnasium. Baroda spends more on public education than any other native State, maintaining public schools for both boys and girls. There are even classes for adult women who must remain in seclusion.

The 2,250,000 inhabitants of Baroda belong predominantly to the Hindu faith, and the pinnacles of numerous Hindu temples pierce the skyline of the capital. The minority religions are not molested, and the Gaekwar, in fact, patronizes one of the chief Mohammedan festivals.

Son of Herdsman Made Ruler of Baroda

The life of the present Gaekwar has been like that of the hero of a fairy tale. In 1875 the ruler of Baroda was accused of attempting to poison the British Resident, and was deposed. He had no heir, so a search was made by the British Government for a collateral relative. A young lad, the son of a humble herdsman, was chosen and was placed on the throne in 1876. It is he who is the present Gaekwar.

Baroda is important as well as wealthy. The Gaekwar is one of only five Indian rulers entitled to receive a salute of 21 guns anywhere in India.

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Catalonia, Spain's Ireland

GENEVA, Switzerland, famous for its congresses and conferences, was recently the scene of an unusual meeting.

The European Minorities Congress opened its session and there appeared representatives of minor racial units from many large European states. There were Germans from northern Italy, Germans from Poland, Yugoslavians, Rumanians and others.

One of the first speeches was made by a Catalonian from Spain. He said Catalonia would always keep her language, literature and individuality. He reminded the congress that Catalonia had a parliament before England had her Magna Charta.

Catalonia is Barcelona's Province

Few people outside Spain know where Catalonia is or what is Catalonian.

The geography of Spain is better known in terms of its cities than its sections. Catalonia can be placed readily by calling it "the province of which Barcelona is the head city."

Politically it can be located by calling it Spanish Ireland. Still Catalonia might resent this label as much as it chafes at Madrid rule. Catalonia's history of independence, running back to the 9th century, is quite ancient enough to warrant Ireland being called instead "the English Catalonia." To make Ireland a proper equal of Catalonia it would be necessary to move from England across the Irish Sea most of England's factories and mines and most of England's industrious workmen. There would be left in England (now playing the role of Spain) the governing classes and the military.

The Workshop of Spain

Catalonia is the workshop of Spain. It claims to pay nearly 80 per cent of the nation's tax bill. The annual income produced by this single province is reported to be two-thirds that of the entire nation. Although Catalonia spreads over one-sixteenth of the area of Spain it supports one-tenth of the population.

There is an old Spanish proverb that, "A Catalan can turn stone into bread."

A Catalan is proud of that proverb. Work is raised to high dignity in Catalonia. The Catalan does not envy Madrid and Seville their reputations with tourists as quaint spots where the Middle Ages linger unashamed. The Catalan lives in the present. He is proud of Barcelona's rows of workingmen's houses and smokestacks. Modern machinery can be found on Barcelona's docks. At the Catalan mines the newest equipment for mining engineering separates ore. Because of the rapid increase of irrigation the Ebro, which drains the whole south flank of the Pyrenees, is dwindling to a creek. It is the Catalan's eagerness to be progressive that has made Barcelona Spain's glass of fashion, and the second city of the nation.

Castilian Spanish is official Spanish. It is standard like Parisian French. But once away from Madrid one hears all sorts of variations from Castilian Spanish. Go into Catalonia and you will hear another language entirely. The Catalans have spent much time and effort preserving their own language. Even

Barcelona newspapers are printed in Catalan. While it is a Romance language (a language based on Latin) the tourist equipped with both French and Spanish might as well stop up his ears when he crosses the border. He will be deaf to Catalan.

The Story of the Catalan Flag

If the traveler comes from the north he will run into Catalan language before he crosses the border. During the many centuries before Spain and France became well knit states Catalonia was a saddle over the Mediterranean end of the Pyrenees Mountains. On the French side the Catalans have not clung to their heritage with the passion of their Spanish brethren. Most of them, like Marshal Joffre, himself a Catalan, are deeply loyal to France. But in Roussillon, in French Catalonia, one may hear in a short walk through the narrow streets, Spanish, French with a Spanish accent, French with a Catalan accent, Spanish with a Catalan accent, Spanish with a French accent, Catalan with a French accent and Catalan with a Spanish accent.

Catalonia has a flag too. It is a yellow banner with four diagonal red stripes. There is a fine story to the design. A dying Catalan hero drew his bloody fingers across his yellow scarf and gave it to his countrymen for a standard. While the banner does not appear often in public it is introduced by devices in coat lapels, automobile radiator caps and insignia for athletic teams.

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RAMBLA DELS FLORS: THE PRINCIPAL BOULEVARD OF BARCELONA

Barcelona is the chief city of Catalonia. Newspapers of Barcelona are in Catalonian dialect which is quite different from Castilian Spanish.